



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,638	05/31/2000	Marcos N. Novaes	POU9-2000-0010-US1	4280

46369 7590 11/29/2005

HESLIN ROTHENBERG FARLEY & MESITI P.C.  
5 COLUMBIA CIRCLE  
ALBANY, NY 12203

EXAMINER

WON, MICHAEL YOUNG

ART UNIT	PAPER NUMBER
----------	--------------

2155

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/584,638

Applicant(s)

NOVAES ET AL.

Examiner

Michael Y. Won

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-12,15-34,37-46,51-60 and 63-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11,22,30-33,44,56-59 and 70 is/are allowed.
- 6) ☒ Claim(s) 1,4-7,12,15-21,23-29,34,37-43,45,46,51-55,60,63-69,71 and 72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to the amendment filed August 29, 2005.
2. Claims 1, 17, 18, 25, 39, 40, 51, 65, and 66 have been amended and claims 13, 14, 35, 36, 47-50, 61, and 62 have been cancelled.
3. Claims 1, 4-12, 15-34, 37-46, 51-60, and 63-72 have been examined and are pending with this action.
4. Claims 8-11, 22, 30-33, 44, 56-59 and 70 remain allowable for the reasons described in the previous office action filed June 22, 2005.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2155

5. Claims 1, 4-7, 12-21, 23-29, 34-43, 45-55, 60-69, and 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard (US 6,078,960) in view of Colby et al. (US 6,006,264 A).

**INDEPENDENT:**

As per **claims 1, 25, and 51**, Ballard teaches a method, a system, and at least one program storage device readable by a machine tangibly embodying at least one program of instructions executable by the machine to perform a method, of providing ordered lists of service addresses (see col.1, lines 46-49), comprising:

creating by a distributed configuration manager of a computing environment a priority (see Fig.4A; Fig.4B; and col.6, lines 6-11 & 39-41) ordered list of service addresses to be used by a client node of a computing environment to reach a service of said computing environment (see Fig.4A; col.1, lines 46-50 & 59-63; and col.6, lines 5-8 & 39-41), said creating using a predefined equation to order a plurality of service addresses having the same ordering criterion, said predefined equation balancing use of said plurality of service addresses among said client node and at least one other client node of said computing environment (see col.5, lines 33-48: "connect time to a given computer relative to available connect time among all the computers whose load is being balanced");

providing said ordered list by said distributed configuration manager to said client node (see col.6, lines 3 & 54-64 and col.7, lines 7-9); and

using said ordered list by said client node to reach said service (see col.1, lines 49-50 & 63-65 and col.5, line 67-col.6, line 2).

Although Ballard teaches of an ordered list of service addresses, Ballard does not explicitly teach wherein said list is ordered specifically for said client node based on one or more characteristics of said client node. Colby teaches wherein a list is ordered specifically for said client node based on one or more characteristics of said client node (see Fig.22; col.4, lines 52-53; col.7, lines 22-26 & 55-57; col.10, lines 40-50: "capabilities of the requesting client"; col.11, lines 8-18; col.12, line 51-col.13, line 2; col.13, lines 58-60: "proximity to the client making the content request"; and col.18, line 40-col.19, line 36).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Colby within the system of Ballard by implementing a list that is ordered specifically for said client node based on one or more characteristics of said client node within the method, system, and program of providing ordered list of service addresses because Colby teaches that "trans-continental network links introduce delay and are frequently congested" and his server selection process "avoids such trans-continental links and the bottlenecks they introduce" (see col.3, lines 60-65). Therefore by employing a list that is ordered with respect to the "proximity of the client" (see col.2, line 57) or "capabilities of the requesting client" (see col.10, lines 49-50), congestion or bottlenecks, which cause delay, are avoided.

As per **claims 18, 40, and 66**, Ballard teaches a method, a system, and at least one program storage device readable by a machine tangibly embodying at least one

program of instructions executable by the machine to perform a method, of providing ordered lists of service addresses (see col.1, lines 46-49), comprising:

priority ordering (see Fig.4A; Fig.4B; and col.6, lines 6-11 & 39-41) by a distributed configuration manager of a computing environment a list of a plurality of service addresses according to an ordering criterion (see Fig.4A; col.1, lines 46-50 & 59-63; col.5, lines 28-35; and col.6, lines 5-8 & 39-41);

for at least one set of service addresses of said plurality of service addresses having a same value for the ordering criterion, selecting by the distributed configuration manager an order for the service addresses of the set, said selecting being based at least in part on workload distribution (see col.5, lines 33-48: "connect time to a given computer relative to available connect time among all the computers whose load is being balanced");

providing said ordered list created by said distributed manager to said client node (see col.6, lines 3 & 54-64 and col.7, lines 7-9); and

using said ordered list by said client node to reach said service (see col.1, lines 49-50 & 63-65 and col.5, line 67-col.6, line 2).

Although Ballard teaches of an ordered list of service addresses, Ballard does not explicitly teach wherein said list is ordered specifically for said client node based on one or more characteristics of said client node. Colby teaches wherein a list is ordered specifically for said client node based on one or more characteristics of said client node (see Fig.22; col.4, lines 52-53; col.7, lines 22-26 & 55-57; col.10, lines 40-50: "capabilities of the requesting client"; col.11, lines 8-18; col.12, line 51-col.13, line 2;

Art Unit: 2155

col.13, lines 58-60: "proximity to the client making the content request"; and col.18, line 40-col.19, line 36).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Colby within the system of Ballard by implementing a list that is ordered specifically for said client node based on one or more characteristics of said client node within the method, system, and program of providing ordered list of service addresses because Colby teaches that "trans-continental network links introduce delay and are frequently congested" and his server selection process "avoids such trans-continental links and the bottlenecks they introduce" (see col.3, lines 60-65). Therefore by employing a list that is ordered with respect to the "proximity of the client" (see col.2, line 57) or "capabilities of the requesting client" (see col.10, lines 49-50), congestion or bottlenecks, which cause delay, are avoided.

**DEPENDENT:**

As per ***claims 4, 6, 7, 23, 24, 26, 28, 29, 45, 46, 52, 54, 55, 71 and 72***, Ballard does not explicitly teaches wherein said ordering criterion comprises lowest distance from said client node to a plurality of servers corresponding to said plurality of service addresses. Colby teaches of a criterion comprising lowest distance from said client node to a plurality of servers corresponding to said plurality of service addresses (see col.3, lines 15-18 and col.20, lines 27-33). See motivation above.

As per ***claims 5, 27, and 53***, Ballard further teaches wherein said predefined equation is based at least in part on the number of said plurality of service addresses

having the same ordering criterion and a node number of said client node (implicit: see col.5, lines 36-48).

As per **claims 12, 34, and 60**, Ballard further teaches wherein said service comprises a system registry service (inherent: see col.4, lines 44-49).

As per **claims 17, 39, and 65**, Ballard further teaches wherein said maintaining, is performed by said distributed configuration manager of said computing environment (implicit: see col.6, lines 3 & 54-64 and col.7, lines 7-9).

As per **claims 15, 16, 37, 38, 63, and 64**, Ballard teaches of further comprising maintaining said ordered list comprising updating said ordered list in response to a change in the service addresses of said list (see col.6, lines 54-64).

As per **claims 19, 41, and 67**, Ballard further teach wherein said selecting comprises: indexing the service addresses of the set in a chosen order providing a set of indices corresponding to the service addresses of the set (see col.5, lines 33-48); and determining an order for the plurality of indices, said order to represent the order of the service addresses of the set (see Fig.4A; Fig.4B; and col.6, lines 5-8).

As per **claims 20, 42, and 68**, Ballard does not teaches wherein the chosen order is ascending order of service addresses. However these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. The ordering of service addresses so that all the services that contain "common data" (see col.6, lines 14-16) are divided up into "percentage" and the "percentages" should add up to 100%" (see col.6, lines 8-12) would be performed the same regardless whether the order was ascending and read from top-down or



descending and read from bottom-up (see Fig.4B). Thus this ordering preference will not distinguish the claimed invention from prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowery*, 32F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to elect to prioritize ascending or descending so long as the functional objectives were met, because the subjective implementation does not patentably distinguish the claimed invention.

As per **claims 21, 43, and 69**, Ballard further teaches wherein said determining comprises using an equation to determine the order (see col.5, lines 33-35), said equation being based at least in part on the number of said service addresses (see col.6, lines 12-16) of said set and a node number of the specific client node (implicit: see col.5, lines 36-48).

As per **claims 49 and 50**, Ballard further teaches wherein said at least one node to order is same or different from said at least one node to select (see col.6, lines 8-11).

### ***Response to Arguments***

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so *found either in the*

*references themselves or in the knowledge generally available to one of ordinary skill in the art.* See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Ballard and Colby are attempting to reach a service at a server by the client (see Ballard: col.3, lines 39-65 and Colby: col.3, lines 10-12). Ballard teaches of an alternative means of load balancing to provide a “more reliable, more flexible technique for achieving load balancing of client demand” (see col.1, lines 38-40) and Colby teaches that load-balancing algorithm is used when accessing a content (see col.6, lines 53-54). Therefore, it would have been obvious to one of ordinary skill in the art to apply the teachings of Colby such as “proximity of the client” as well as other means (such as those described by Colby in column 2, lines 53-57) to better evaluate the server selection process. Clearly, there is more than one motivation to combine the references.

In response to the argument regarding the amended limitation of a “priority ordered list”, Ballard clearly teaches this limitation. In Figure 4A and Figure 4B, Ballard teaches an example of a list that is prioritized with respect to the load that is provide to the client. Furthermore, in column 6, lines 6-11, Ballard teaches of load percentage list, wherein the percentage is distinct for each server and in column 6, lines 39-41, Ballard teaches that the percentages in the list is the “seeds for the server selection function”.

In response to the argument that Ballard teaches a “client-side load-balancing” the applicant's argue that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., “server-side load

balancing”) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, although Ballard teaches of client-side “server selection process”, such teaching does not explicitly teach a client-side load balancing. The teaching suggests that the client makes the overall determination, but the process of load balancing as a whole is a functional process at both the server and the client since the server provides the current load on the server.

In response to the argument that there is no teaching or suggestion by Ballard that this “created ordered list is then provided to the client node for use by the client node to reach the service”, the examiner completely disagrees with this assertion. In the recited reference locations and throughout the Ballard patent, Ballard clearly teaches that the created ordered list is provided to the client node (see col.6, line 65-col.7, line 9) for use by the client node to reach the service (see col.6, lines 31-41). Furthermore, Ballard does not teach that the load balance list is ordered at the client node as asserted by the applicant(s).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Regardless of the differences in the invention of Colby with that of Ballard, by combining the teaching of Colby specifically of providing an list that is “ordered

specifically for said client node based on one or more characteristics of said client node” adds additional features that overcome the objective of Ballard, that is to avoid slow response time when requesting for service. Colby teaches that by determining the location of the requesting client with respect to “proximity” of the requested server also reduces delay by avoiding “trans-continental links and the bottlenecks they introduce”. Therefore, by incorporating the teachings of Colby into Ballard, not only is the load on the server a determination factor for the server selection, but also the distance that the data must travel to reach said service and back.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

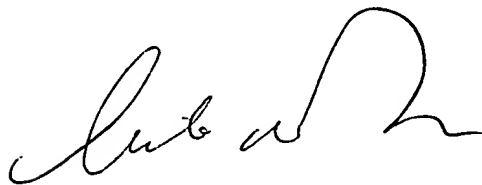
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Won



November 23, 2005



SALEH NAJJAR  
SUPERVISORY PATENT EXAMINER